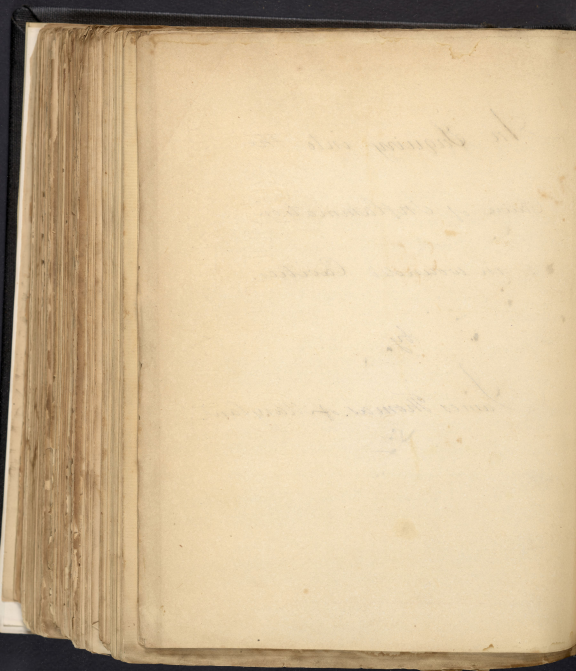


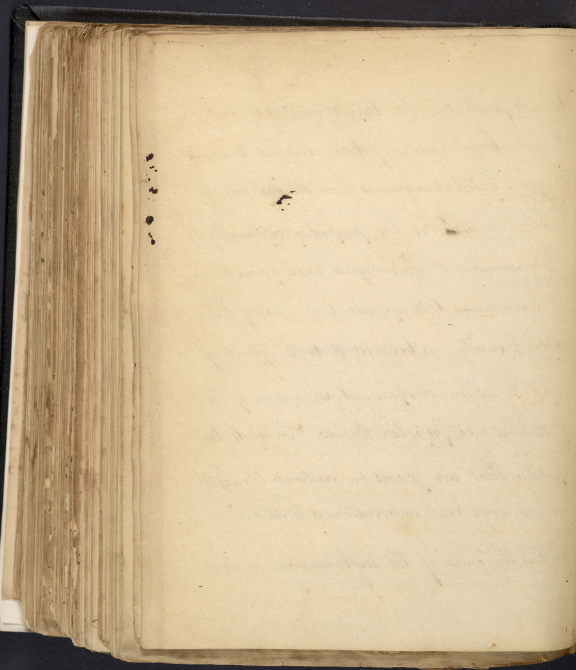
An Inquiry into the  
Cause of Inflammation  
in wounded Cavities.

by

James Thomas. of Maryland.

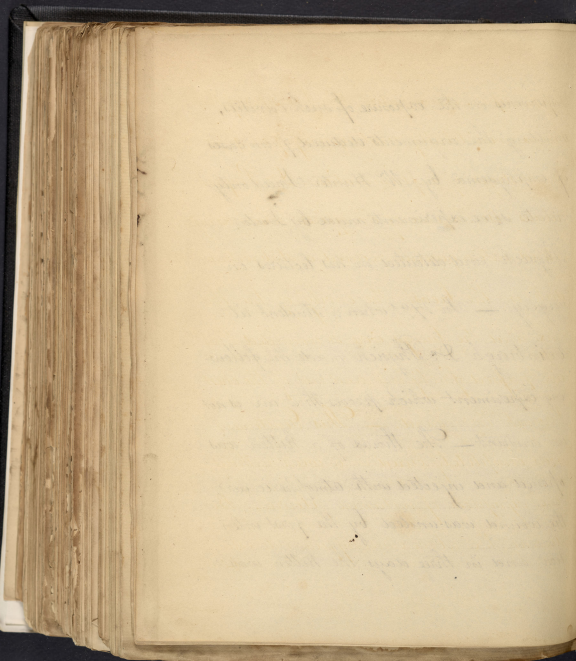


Wounds penetrating the larger cavities of the human body have long been observed to occasion more fatal consequences than similar wounds in other parts. For the purpose of explaining this circumstance Pathologists have formed many theories. — Atmospheric air entering the exposed cavity was believed to be the offending cause on which was founded perhaps one of the first and most popular theories. To refute the opinion that air proves an irritant to cavities which have been unaccustomed to its action and is the cause of the inflammation which





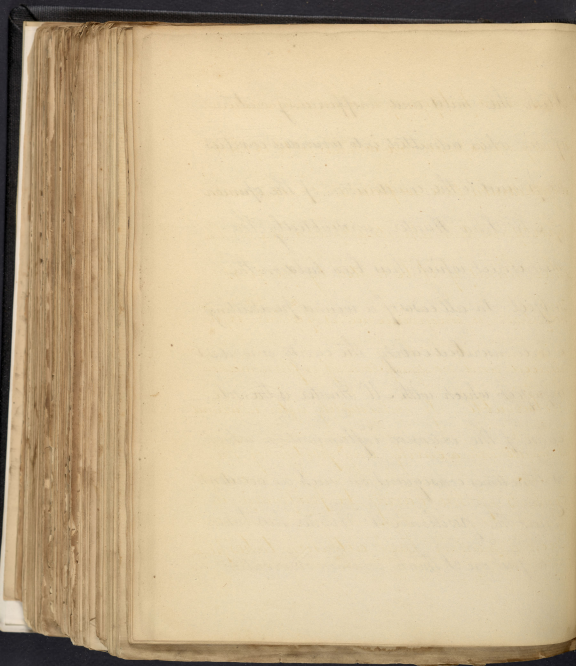
supervenes on the exposure of such cavities,  
omitting the arguments deduced from cases  
of emphysema by Mr Hunter I need only  
relate some experiments made by Doctor  
Physick and detailed in his lectures on  
surgery. — In 1791 when a student at  
Edinburgh Dr Physick made the follow-  
ing experiment which proves that air is not  
an irritant — The thorax of a kitten was  
opened and injected with atmospheric air;  
the wound was united by the first inten-  
tion and in three days the kitten was



killed upon examination the two sides of the  
thorax were totally and equally free from  
all vestiges of inflammation. Dr. Physick  
relates also the case of an officer who having  
entered into a quarrel received a stab with a  
dirk in the breast the cavity of the tho-  
rax and the lungs were so wounded that  
air passed freely into and out of the chest  
through the wound. — This Gentleman  
was completely cured in a week without  
one symptom of inflamed pleura. Be-  
lieving the above cases sufficient to esta-  
blish

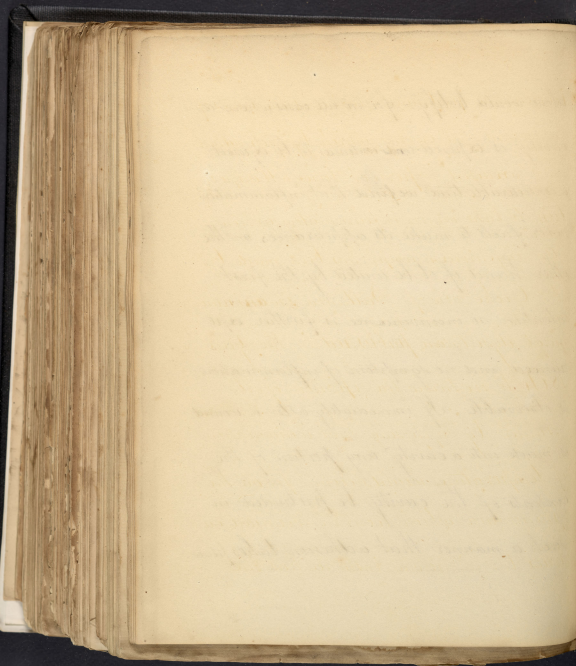
... upon examining the ...  
... and ...  
... of ...  
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... the ...

With the mild and unoffending nature  
of air when admitted into wounded cavities  
we proceed to the consideration of the opinion  
of Mr John Hunter undoubtedly the  
most correct which has been held on the  
subject. In all cases of a wound penetrating  
a circumscribed cavity the cavity is rendered  
imperfect which with Mr Hunter is the sole  
cause of the extensive inflammation which  
is sometimes consequent on such an accident.  
That the position Mr Hunter has taken  
is a just one I think common observation



alone would testify; for in all cases where a  
cavity is exposed and continues to be exposed  
a considerable time we find that inflammation  
never fails to make its appearance, on the  
other hand if it be united by the first  
intention no inconvenience is further expe-  
rienced and no symptom of inflammation  
is observable. If immediately after a wound  
is made into a cavity any portion of the  
contents of the cavity be protruded in  
such a manner that adhesion takes place

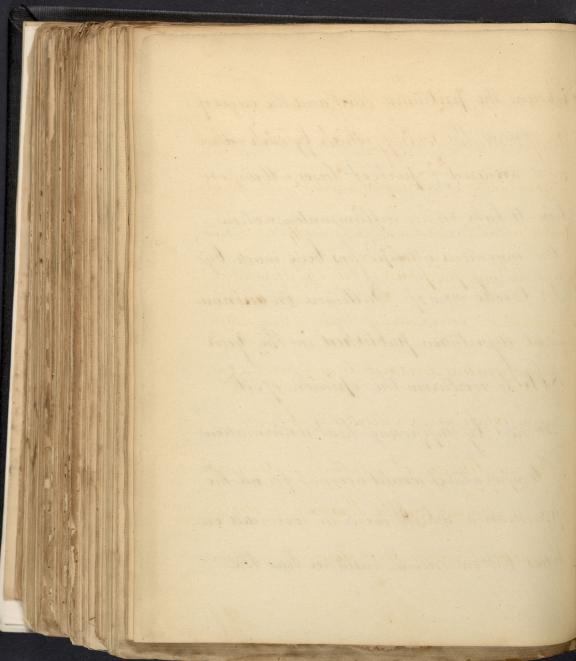




between the protruded part and the edges of  
the wound the cavity which by such adhesion  
is rendered perfect loses all disposition  
to take on an inflammatory action.

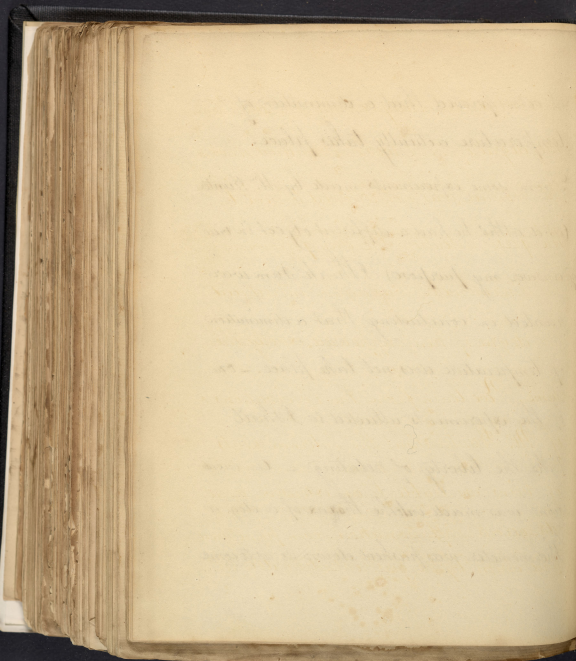
An ingenious attempt has been made by  
Dr. Cooke now of Baltimore in an inaugural  
dissertation published in the year  
1804 to overthrow the opinion of Mr.

Hunter by supposing that a diminution  
of temperature would account for all the  
phenomena which occur in wounded cavities  
but in no one instance has the

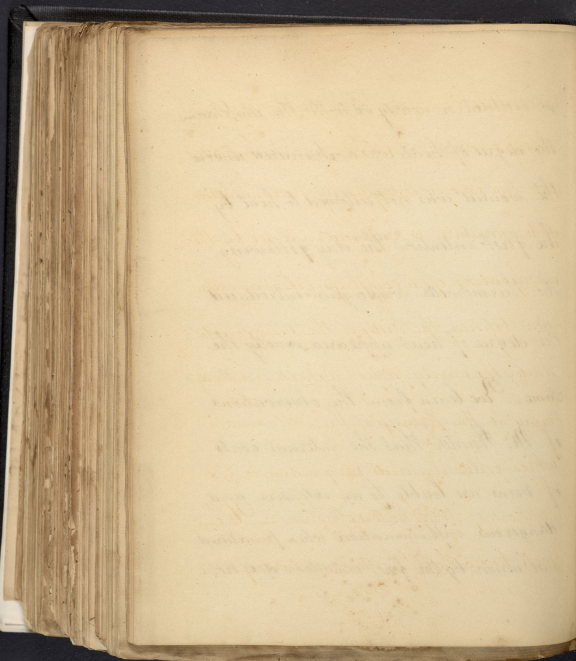


Doctor proved that a diminution of temperature actually takes place.

From some experiments made by Mr. Hunter (and altho' he had a different object in view they answer my purpose) I think I am warranted in concluding that a diminution of temperature does not take place. - one of the experiments alluded to I shall take the liberty of relating. - An incision was made into the thorax of a dog a thermometer was pushed down so as to come



in contact or nearly so with the diaphragm  
the degree of heat was one hundred and one  
the wound was not allowed to heal by  
the first intention the day following  
the thermometer was again introduced  
the degree of heat appeared exactly the  
same. We learn from the observations  
of Mr. Hunter that the internal coats  
of veins are liable to an extensive and  
dangerous inflammation when punctured  
and union by the first intention does not





take place. — here undoubtedly Dr Crookes  
theory cannot hold good — no air is admitted  
into the cavity consequently no diminution  
of temperature is produced — if we by the  
application of a compress effect an adhe-  
sion between the sides of the vein so as to  
render the cavity perfect a check is instantly  
made to the progress of the inflammation  
which certainly tends very much to the  
support of Mr Hunters opinion. — We  
well know that the temperature of a

the first of these is the fact that the  
the second is the fact that the  
the third is the fact that the  
the fourth is the fact that the  
the fifth is the fact that the  
the sixth is the fact that the  
the seventh is the fact that the  
the eighth is the fact that the  
the ninth is the fact that the  
the tenth is the fact that the

limb may be diminished almost to freezing  
without producing inflammation, but  
if one of the joints be wounded and the  
edges of the wound kept from uniting  
the phenomena of inflamed cavities are  
occasioned. What one reason have we for  
supposing that air of the temperature of  $70^{\circ}$   
or  $80^{\circ}$  will excite by its coldness inflammation  
in the thorax? In the warmest as in the  
coldest seasons, the phenomena of infla-  
mmation are the same and the only

that may be considered as a  
series of points of view, but  
if one of the points is removed  
the series of the points will  
be the same as if the points  
were not removed. This is the  
case with the series of points  
of view. The series of points  
of view is the same as if the  
points were not removed. This  
is the case with the series of  
points of view. The series of  
points of view is the same as  
if the points were not removed.

circumstance necessary to excite it, is the  
imperfection of the cavity.

